

# San Francisco Vessel Mutual Assistance Plan SF V-MAP

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# **San Francisco Vessel Mutual Assistance Plan**

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### **Introduction**

The purpose of the San Francisco Vessel Mutual Assistance Plan (SF V-MAP) is to ensure that a sufficient level of safety exists under Title 46, Code of Federal Regulations, Section 117.207(f) (see appendix (4)) so that small passenger vessels meeting the criteria of section 117.207(f) carry an appropriate number and type of survival craft and to enhance local capabilities to effectively manage a catastrophic, waterborne Search and Rescue incident.

The objectives of the SF V-MAP are to:

1. Create a “sufficient level of safety” as required by 46 CFR 117.207(f).
2. Provide effective and expedient emergency support by member vessels for a marine search and rescue operation on San Francisco Bay involving a large number of victims or potential victims.
3. Ensure lifesaving equipment available on each member vessel is appropriate for the waters of San Francisco Bay.
4. Promote professionalism in emergency preparedness and response.
5. Provide, through mutual assistance, a more effective and timely means to rescue all persons in the water (PIW).

### **Background**

In 1996, the Coast Guard promulgated changes to lifesaving regulations for small passenger vessels. The purpose of the new regulations was to “address the effects of hypothermia and exposure not envisioned by the original regulations.” In the case of passenger vessels inspected under 46 CFR Subchapter K (K-boats) on Lakes, Bays and Sounds routes, the new regulations called for an increase in the number of life floats required, from 30 percent to 100 percent of the total persons allowed on board. The new regulations also permitted the Coast Guard Officer in Charge, Marine Inspection (OCMI) to reduce the amount of primary lifesaving equipment for vessels:

“...operating with a set schedule on a specific route that does not take it more than 20 nautical miles from a harbor of safe refuge, and that maintains a 15 minute radio communications schedule with an operations base, or participates in a Vessel Traffic Service (VTS)...when the cognizant OCMI is satisfied that a sufficient level of safety exists.”

The OCMI believes a sufficient level of safety, equal to or superior to the 100 percent life float requirement, can be achieved member vessels’ adherence to this mutual assistance plan.

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The affects of exposure and hypothermia are addressed by this plan in two ways:

1. A more organized and timely response to a catastrophic Search and Rescue incident is intended to reduce exposure time of persons in the water. It also recognizes that other K-boats may be among the first assets on scene, and that, as required by Title 46, United States Code (USC), Section 2304 (see appendix (4)), they may be among the first to provide assistance.
2. Every vessel will maintain on board at least one, 25-person inflatable buoyant apparatus (IBA), or approved equivalent, in addition to any non-inflatable lifesaving appliances (life float or buoyant apparatus) required on board. The IBA serves four purposes:
  - a. Onboard a vessel in distress, it increases and upgrades the vessel's primary lifesaving equipment and capacity.
  - b. On a vessel providing assistance to another vessel, it can be deployed to supplement the other vessel's lifesaving equipment.
  - c. If rescue operations are already underway, an assisting passenger vessel can deploy its IBA as an intermediate transfer station, safely receiving rescued persons from rescue craft, and expediting the recovery of PIW.
  - d. Due to their design and method of use, IBAs help keep persons out of the water thereby reducing the effects of exposure and hypothermia.

### **Organization**

The SF V-MAP is composed of member vessels, the Coast Guard and other organizations listed in the appendix to this plan. Each member vessel will be represented at periodic meetings, at least twice a year, to discuss lessons learned, plan an annual drill, and generally strive to improve this plan and mutual assistance capabilities. All parties pledge their assistance to any vessel in distress, to the fullest extent such aid is possible, consistent with 46 USC 2304. Members will render assistance when requested by a vessel or the Coast Guard. No persons need actually be in the water to constitute a mutual assistance situation.

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### **Concept of Operations**

The SF V-MAP envisions a rapid response to any catastrophic search and rescue operation on San Francisco Bay. If a member vessel is the first to arrive on scene, it may deploy any and all lifesaving equipment it deems appropriate. The first vessel on scene may also begin recovery of PIW. Whereas Coast Guard and other rescue craft are smaller and more maneuverable, this plan envisions most K-boats standing-by on the perimeter of the rescue area to serve as staging platforms as directed by the Coast Guard or other public safety agency On-Scene Coordinator. K-boats provide a greater height of eye to locate PIW and may receive victims directly from rescuers or via a deployed IBA.

### **Duties, Procedures, and Policies**

#### *General*

The general practices guiding SF V-MAP include the following:

1. Coast Guard Marine Safety Office San Francisco Bay, Inspections Department, will maintain the master copy of this plan. Copies will be distributed to each member vessel and organization.
2. This plan will be updated semiannually to reflect proper contacts and phone numbers, as well as to incorporate any other improvements agreed upon by the members.
3. Each member vessel will carry the following minimum equipment:
  - a. Life floats, or existing buoyant apparatus, for at least 30 percent of the total persons permitted on board;
  - b. One 25 person inflatable buoyant apparatus (IBA), or an approved equivalent device;
  - c. Some effective and expedient means of transferring people from an IBA to the vessel;
  - d. Some effective and expedient means to retrieve personnel from the water;
  - e. A spotlight for nighttime PIW recovery operations; and
  - f. All other equipment and personnel required by the vessel's Certificate of Inspection.
4. All vessels will monitor and participate in Vessel Traffic Service (VTS) on channel 14 while they are operating on San Francisco Bay.

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5. All SF V-MAP vessels will report their route and schedule to VTS during their required sailing plan report. Vessels will also provide VTS with the total number of persons on board immediately prior to getting underway, or as soon thereafter as possible.

### *Training*

1. All member organizations will assign at least one representative to participate in periodic SF V-MAP meetings.
2. Each member organization will conduct training to enable their personnel to effectively implement this plan.
3. All members will participate in an annual drill exercising this plan. The scope of the drill will be determined by the members of the SF V-MAP. Members of the group will host, plan and conduct the annual drill on a rotating basis.

### *Activation*

1. The master of a vessel in distress should first contact the Coast Guard. This may be done on either channel 14 or 16. The master and/or Coast Guard may then activate the SF V-MAP.
2. SF V-MAP can be activated by broadcasting a request or MAYDAY on Channel 14. The Coast Guard will contact other member vessels to render assistance as required to effect rescue operations.
3. To activate moored SF V-MAP vessels, VTS, Group San Francisco, a master or a member organization will call the Command Duty Officer at MSO San Francisco Bay at **(510) 437 3073**.
  - a. The MSO will use the recall data in appendix six to contact the designated person at each company.
  - b. If the designated person is not available, the MSO will call secondary numbers for the company until a representative is contacted and informed of the emergency.
  - c. The MSO will only notify the company contact that “the Vessel Mutual Assistance Plan has been activated, all vessels shall respond.”
  - d. The MSO will notify the Coast Guard Pacific Area/District Eleven Command Center at (510) 437 3701.
4. Each member of the SF V-MAP will notify his or her personnel and begin mobilizing their vessels. Each vessel will respond as

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quickly as possible when the plan is activated.

5. Vessels prepared to respond will contact VTS. VTS will brief the vessel and inform the master which channel to monitor for instructions from the On-Scene Coordinator.
6. All vessels will take direction from the Coast Guard On-Scene Coordinator, and will make all equipment available to the Coast Guard.
7. Vessels will not leave the scene until released by the On-Scene Coordinator.

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### Appendix One

#### Assumptions

The SF V-MAP concept is based on the following assumptions:

1. A major K-boat casualty may result in hundreds of people in the water.
2. Even with donned personal flotation devices, hypothermia tables indicate that PIW should be removed from the water within two hours (much sooner if possible) to reduce complications caused by exposure to cold water typical to San Francisco Bay.
3. Victim drift (due to currents) will be a significant challenge for recovering PIW.
4. There are many public safety organizations that operate rescue craft on San Francisco Bay. The first of these craft can respond within 30 minutes in most areas of the Bay.
5. K-boats provide an excellent staging platform for victims, but are not the best "rescue craft" when there are many people in the water. K-boats are generally not as maneuverable as smaller, dedicated rescue craft. Also, when operating in close proximity to many PIW, it may be dangerous to maneuver (turn propellers). This problem is exacerbated with the new water jet-drive systems on some high-speed vessels. Both the suction and discharge associated with these drive units may pose dangers to PIW.
6. Rescue craft operated by Coast Guard, and other public safety organizations, are designed to more easily rescue PIW but have limited capacity. When PIW are reasonably close together, most of these craft are capable of recovering two persons per minute from the water.
7. Most small rescue craft can carry from a few to 20 persons. The critical issue is turn-around time to unload victims and return to recover more PIW. Ferrying recovered PIW to shore and returning to the accident scene may take up valuable time.
  - This reduces the number of assets available on scene to pick-up PIW, slowing recovery.
  - It also allows remaining PIW more time to drift apart, making recovery more difficult.
8. K-boats have the passenger capacity (i.e., deck space) to serve as an excellent staging platform for a large number of rescued persons.
9. To reduce turn-around time when victims are embarked, K-boats can be used as staging platforms near the scene to receive victims recovered by rescue craft.
10. Most K-boats do not have qualified emergency medical technicians onboard. The Coast Guard or other public safety agency On-Scene Coordinator will coordinate medical treatment beyond limited first aid,

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even after victims are transferred to a K-boat.

11. Not all K-boats and rescue craft have compatible freeboards. Even when the freeboards are similar, action between the hulls of these boats may create a pinch/crush hazard for victims during transfer.
12. Transfer of recovered persons can be better facilitated if K-boats carried at least one 25 person IBA. Rescue craft could deliver people to the IBA secured to the K-boat and quickly return to recover more PIW. These rescued persons in the IBA can then be transferred to the safety of the larger K-boat by some effective means.
13. The IBA can be used as additional primary lifesaving for each vessel. A 25-person IBA can be overloaded to hold 38 people. The IBA also has a lifeline strung around the outside that approximately 20 people could hold onto. Nearly 60 people could be kept together, in, on and clinging to, a 25-person IBA.



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### Appendix Two

#### *Definitions*

*Catastrophic Search and Rescue* means a large-scale search and rescue operation in which many lives are in immediate danger.

*Distress* - A vessel is considered to be in distress when fire, flooding, grounding, collision, allision, or other dangerous situation places the vessel's crew and passengers in need of immediate assistance.

*K-boat* - A vessel inspected under subchapter "K" of Title 46, Code of Federal Regulations. The vessels participating in this plan meet the regulatory criteria for a K-boat because they are vessels under 100 gross register tons certified to carry more than 150 passengers.

*Life float* - A non-inflatable survival craft device approved by the Coast Guard. For the purposes of this plan, it may be described as an orange, rigid piece of flotation equipment, usually made of Styrofoam, and provided with a net in the center. As allowed by 46 CFR 117.15(c), buoyant apparatus already in use on a vessel may be used to meet the requirements of life floats as long as the buoyant apparatus is in good and serviceable condition. (A *buoyant apparatus* is very similar to a life float but is solid and does not have a net in the center.)

*Inflatable buoyant apparatus (IBA)* – An inflatable survival craft device approved by the Coast Guard. An IBA is designed with two inflatable buoyancy chambers with a floor between the chambers so that it can, floating either side up, accommodate the number of persons for which it is approved.

*On-Scene Coordinator (OSC)* is the Coast Guard or other public safety agency person or unit assigned to manage the Search and Rescue operations. The OSC will manage all of the available search and rescue assets, including vessels that are members of the SF V-MAP. The OSC will coordinate medical treatment beyond limited first aid, even after victims are transferred to a K-boat. The OSC may be contacted on the radio by hailing "On-Scene Coordinator." The name of the person or unit acting as OSC is not required.

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## **Appendix Three**

### *Abbreviations*

<i>IBA</i>	Inflatable Buoyant Apparatus
<i>MSO</i>	Marine Safety Office
<i>OCMI</i>	Officer in Charge, Marine Inspection
<i>OSC</i>	On-Scene Coordinator
<i>PIW</i>	Person(s) In the Water
<i>VTs</i>	Vessel Traffic Service

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## **Appendix Four**

### *Laws & Regulations*

46 USC 2304 – “A master or individual in charge of a vessel shall render assistance to any individual found at sea in danger of being lost, so far as the master can do so without serious danger to the master’s or individual’s vessel or individuals on board.”

46 CFR 117.207(f) – “Each vessel operating on a set schedule on a specific route that does not take it more than 20 nautical miles from a harbor of safe refuge, and that maintains a 15 minute radio communications schedule with an operations base, or participates in a Vessel Traffic Service (VTS), may be granted a reduction in the survival craft requirements of this section if the cognizant OCMI is satisfied that a sufficient level of safety exists.”

46 CFR 117.15(c) – “Each inflatable liferaft, inflatable buoyant apparatus, life float, and buoyant apparatus on the vessel on March 11, 1996 may be used to meet the requirements of this part as long as the survival craft is in good and serviceable condition.” [See also, 46 CFR Table 117.200(c), “Abbreviations used,” for an explanation of buoyant apparatus used by authority of this regulation.]

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### Appendix Five

*Participating  
Vessels &  
Organizations*

<u>Vessel</u>	<u>Operator</u>
1. Angel Island D564370	Angel Island–Tiburon Ferry Co.
2. Bay Breeze D1020550	Harbor Bay Maritime
3. Bay Flyer D533655	Blue & Gold Fleet
4. Bay Clipper D557225	Blue & Gold Fleet
5. Bay Monarch D572538	Blue & Gold Fleet
6. California Hornblower D947942	Hornblower Cruises & Events
7. Del Norte D1061578	Golden Gate Ferry
8. Empress Hornblower D940671	Hornblower Cruises & Events
9. Encinal D682580	Blue & Gold Fleet
10. Golden Bear D615355	Blue & Gold Fleet
11. Harbor Emperor D513351	Blue & Gold Fleet
12. Harbor King D276748	Red and White Fleet
13. Harbor Princess D278851	Red and White Fleet
14. Harbor Queen D267664	Red and White Fleet
15. Intintoli D1050665	Vallejo Baylink Ferries
16. Jet Cat Express D972155	Vallejo Baylink Ferries
17. Mare Island D1053103	Vallejo Baylink Ferries
18. Marin D578103	Golden Gate Ferry
19. Monte Carlo Hornblower D681492	Honblower Cruises & Events
20. Old Blue D607794	Blue & Gold Fleet
21. Oski D603966	Blue & Gold Fleet
22. Royal Prince D288705	Red and White Fleet
23. Royal Star D524689	Blue & Gold Fleet
24. Sonoma D578765	Golden Gate Ferry
25. San Francisco D586350	Golden Gate Ferry
26. San Francisco Spirit D971235	Pacific Marine Yachts
27. Zelinski D902663	Blue & Gold Fleet

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